(FILE 'HOME' ENTERED AT 10:41:21 ON 06 MAY 2000)

FILE 'MEDLINE, AGRICOLA, CANCERLIT, SCISEARCH, CAPLUS, BIOSIS, MEDICONF'
ENTERED AT 10:42:52 ON 06 MAY 2000

```
L1       136952 S TRANSGENIC
L2          725 S L1 AND (NF-L OR NEUROFILAMENT)
L3          358 S L2 AND HUMAN
L4          355 S L3 AND (MICE OR MOUSE OR RAT)
L5          107 S L4 AND (HUMAN NEUROFILAMENT)
L6           45 DUP REM L5 (62 DUPLICATES REMOVED)
L7           45 SORT L6 PY
```

```
=> log y
```

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	45.41	45.86

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.23	-2.23

STN INTERNATIONAL LOGOFF AT 10:54:33 ON 06 MAY 2000

L7 ANSWER 13 OF 45 MEDLINE
TI Functional analysis of the **human neurofilament** light chain gene promoter.
SO NUCLEIC ACIDS RESEARCH, (1993 Feb 11) 21 (3) 455-61.
Journal code: O8L. ISSN: 0305-1048.
AU Yazdanbakhsh K; Fraser P; Kioussis D; Vidal M; Grosveld F; Lindenbaum M
AB We have carried out a structural and functional analysis on the **human NF-L** (H-**NF-L**) gene.
It contains a methylation-free island, spanning the 5' flanking sequences and the first exon and a number of neuronal-specific DNase I hypersensitive sites have been identified in the upstream region as well as within the body of the gene. Analysis in cell lines and **transgenic mice** using a combination of these sites has revealed the presence of a conserved element(s) between -300bp and -190bp which is required for neuronal-specific expression.

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L7 ANSWER 1 OF 45 MEDLINE
TI Expression and assembly of a **human neurofilament** protein in **transgenic mice** provide a novel neuronal marking system.
SO GENES AND DEVELOPMENT, (1987 Dec) 1 (10) 1085-95.
Journal code: FN3. ISSN: 0890-9369.
AU Julien J P; Tretjakoff I; Beaudet L; Peterson A
AB To investigate the regulation of **neurofilament** gene expression, we have generated several lines of **transgenic mice** carrying multiple copies of a cloned **human neurofilament** (**NF-L**) gene. We show that a 21.5-kb DNA fragment including the **human NF-L** gene contains essential information for correct expression in nervous tissue of **transgenic mice**. The integrated genes are arranged in multiple tandem arrays, but the extent of transgene expression does not correlate with copy number nor does it influence the expression of the endogenous **neurofilament** genes. However, the levels of **human NF-L** protein recovered in **neurofilament** preparations from brains of **transgenic mice** correlate directly with the relative abundance of **human NF-L** mRNA detected in each line. There is an apparent delay in the accumulation of **human NF-L** protein during development, as determined by immunoblotting with a **human**-specific monoclonal antibody. Finally, immunohistochemical localization of the **human NF-L** protein results in the specific staining of neurons and their processes in **transgenic mice**.

L7 ANSWER 18 OF 45 CAPLUS COPYRIGHT 2000 ACS
TI **Transgenic** animal models for neurodegenerative disease
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2
IN Lazzarini, Robert A.
AB The design, construction, and use of **transgenic** animals which exhibit features, including neurofibrillary tangles and aluminum sensitivity, is described. The founder **transgenic** animals are produced by methods well known in the art, and utilize DNA sequences designed to express all or any part of the **human** **neurofilament** subunit M (NF-M) gene in a neural-enriched manner. The animal model can be used for the studies of the causes and treatment of neurodegenerative disease, e.g., Alzheimer's disease. Prepn. and characterization of **transgenic** **mice** were shown.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9406282	A1	19940331	WO 1993-US8981	19930922
W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5602299	A	19970211	US 1992-950092	19920923

L7 ANSWER 17 OF 45 SCISEARCH COPYRIGHT 2000 ISI (R)

TI BOTH UPSTREAM AND INTRAGENIC SEQUENCES OF THE **HUMAN NEUROFILAMENT** LIGHT GENE DIRECT EXPRESSION OF LACZ IN NEURONS OF **TRANSGENIC MOUSE** EMBRYOS

SO JOURNAL OF MOLECULAR NEUROSCIENCE, (1994) Vol. 5, No. 4, pp. 273-295. ISSN: 0895-8696.

AU LECONTE L; SEMONIN O; ZVARA A; BOISSEAU S; POUJEOL C; JULIEN J P; SIMONNEAU M (Reprint)

AB Initial expression of the **neurofilament** light gene coincides with the appearance of postmitotic neurons. To investigate the molecular mechanisms involved in neuron-specific gene expression during embryogenesis, we generated **transgenic mice** carrying various regions of the **human neurofilament** light gene (hNF-L) fused to the lacZ reporter gene. We found that 2.3 or 0.3 kb of the hNF-L promoter region directs expression of lacZ in neurons of **transgenic** embryos. Addition of 1.8 kb hNF-L intragenic sequences (IS) enlarges the neuronal pattern of transgene expression. The 2.3-kb hNF-L promote lacZ-IS construct contains all regulatory elements essential for both spatial and temporal expression of the hNF-L gene during embryogenesis and in the adult. The use of a heterologous promoter demonstrated that the 1.8-kb hNF-L intragenic sequences are sufficient to direct the expression of lacZ in a **NF-L**-specific manner both temporally and spatially during development and in the adult. We conclude that these hNF-L intragenic sequences contain cis-acting DNA regulatory elements that specify neuronal expression. Taken together, these results show that the **neurofilament** light gene contains separate upstream and intragenic elements, each of which directs lacZ expression in embryonic neurons.